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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,802	04/21/2006	Toshiaki Nagasawa	1941.1001	5918
21171 7590 03/03/2009 STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005				
EXAMINER				
CHEA, THORL				
ART UNIT		PAPER NUMBER		
1795				
MAIL DATE		DELIVERY MODE		
03/03/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/576,802

**Applicant(s)**

NAGASAWA ET AL.

**Examiner**

Thorl Chea

**Art Unit**

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on June 25, 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4, 6-10 and 12-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4, 6-10 and 12-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This office action is responsive to the communication on January 29; claims 4, 6-10, 12-25 are pending; claims 1-3, 5 and 11 have been canceled; and claims 19-25 have been newly added.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 29, 2009 has been entered.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 6-10, 12-25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP1260498 (EP'498). EP'498 (paragraphs 266,272-277,282,284,286,288; examples 1, 24) discloses compositions of urea- urethane developers which are heat treated at 60 degrees C or lower. Examples 1 and 24 also have Ca carbonate as set forth in instant claim 7. Al oxide and Mg silicate may also be optionally present. Acid developers may also be optionally present. It would at least be obvious to

one skilled in the art to use the optional acidic developers, Al oxide or Mg silicate and to use heat during the disclosed grinding. The compositions of the instant claims are substantially the same as those of EP '498 even without heating in EP '498 since applicants' specification on page 30 discloses that heating at temperatures above 40 degrees for at least 3 hours is necessary to produce substantial change in the urea-urethane compositions while the instant claims include heating at lower temperatures for any period of time and claims 4, 6, 7 and do not require any heating.

5. Claims 4, 6-10, 12-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Igarashi (US 5,110,848) and EP1260498 (EP'498).

Igarashi discloses a composition for a color development and process substantially as claimed except use of a compound urea-urethane having one or more group urea group and one or more urethane group in the same molecule claimed in the present claimed invention. See the composition and the process of forming thereof taught in Igarashi in the abstract which include heat-treating the dispersion at the temperature of from 30 to 90°C; the heat-treatment is performed from 15 second to 1 hour in column 5, lines 56-65; the dispersion of the color former and/or color developer can be performed by utilizing a dispersing mean, and the dispersion particle of the dispersed component is preferably not larger than 5 micron in column 5, lines 1-17; the color fading inhibitors including the hindered phenol in column 7, lines 64-68 and column 8, lines 1-14; the surface active agent in column including alkali metal salts of sulfosuccinic acid and fluorine-containing surface active agent in column 7, lines 60-63; and the pigment such as calcium carbonate in column 7, lines 48-51. It is disclosed in column 4, lines 56-65 that "the formation of fog in the heat-sensitive recording material obtained can be greatly

reduced without reducing the coloring property and the storage stability of the color product. The process of the invention has an advantages that the improvement of whiteness (reproduction of the formation of fog) of the heat-sensitive recording material. EP'948 discloses the compound urea-urethane having one or more group urea group and one or more urethane group in the same molecule claimed in the present claimed invention which exhibit excellent characteristic when used a developer for color-production composition. See page 3, [0012] to [0020], particle size of urea-urethane compound between 0.05 to 5 micron on page 13, [0074] and the grinding temperature of 60 °C on page 13, [0075]. It would have been obvious to the worker of ordinary skill in the art the time the invention was made to use the urea-urethane developer taught in EP'498 as color-developer taught in Igarashi in combination of the process of treating the dispersion taught therein with an expectation of achieving a composition for producing a color development material exhibiting an improvement of whiteness. The amount of the color inhibitor provided in claim 21 relative to the amount of urea-urethane compound would have been found obvious to the worker of ordinary skill in the art at the time the invention was made having known the property thereof, the worker of ordinary skill in the art would have optimized the amount of color inhibiting agent to prevent the color material from fading, and thereby provide an amount as claimed.

6. Cited of interest: Ikezawa et al (US 4,421,344) discloses zinc oxide and zinc hydroside as color-fading preventing agent in the abstract; Endo (US 6,074,808) in column 3, lines 35-45 disclosed hindered phenol or hindered amine derivative as anti-color fading; and Yamato et al (US 4,473,832) discloses that zinc carbonate has an effect to increase a color intensity and improve the resistance of light fade (column 4, lines 11-15).

***Response to Arguments***

7. Applicant's arguments filed June 25, 2008 have been fully considered but they are not persuasive for same reason disclosed in the Final office action on October 9, 2008. The limitation newly added in the response on January 29, 2009 is related to a method of determining of a degree of whiteness of a color development system, and fails to differentiate the composition of the claimed material and the material of the applied prior art of record. The rejections is based on 35 USC 102(b)/103(a), and the change of the degree of whiteness is inherent to the material of the prior art. There is no convincing evidence showing that the composition taught in EP'498 differs from that of claimed in the present claimed invention. "(E)vidence of secondary considerations, such as unexpected results or commercial success, is irrelevant to 35 U.S.C 102 rejections and thus cannot overcome a rejection so based. In re Wiggins, 488 F.2d 538, 543, 179 USPQ 421, 425 (CCPA 1973). Moreover, the applicants' argument is based on the Counsels' assertion. Counsel's arguments cannot take the place of evidence. In re Greenfield, 571 F. 2d 1185, 197 USPQ 227 (CCPA 1978). Moreover, it has been known in Igarashi to improve the whiteness by treating the dispersion within the temperature claimed in the present claimed invention. Therefore, this improvement would have expected by the worker of ordinary skill in the art at the time the invention was made.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TC/  
2009-02-26

/Thorl Chea/  
Primary Examiner, Art Unit 1795